Table 7.1 **Medications used for acute rheumatic fever**

Indication	Medication options listed in order of preference	Comment
Eradication of inciting streptococcal infection	1. Benzathine benzylpenicillin G (BPG) 1,200,000 units (child <20 kg: 600,000 units; ≥20 kg: 1,200,000 units) IMI single dose OR	Streptococcal infection may not be evident by the time ARF manifests (e.g. cultures often negative) but eradication therapy for possible persisting streptococci is recommended nonetheless. Intramuscular penicillin is preferred due to better adherence and its ongoing use in secondary prophylaxis.
	2. Phenoxymethylpenicillin 500 mg (child: 15 mg/kg up to 500 mg) orally 12-hourly for 10 days	
	3. *Penicillin hypersensitivity (non-severe)*: cefalexin 1 g (child: 25 mg/kg up to 1 g) orally, 12-hourly for 10 days	Between 3 and 30% of Group A Streptococcus isolates internationally are resistant to macrolide antibiotics (e.g. azithromycin).
	4. *Immediate penicillin hypersensitivity*: azithromycin 500 mg (child: 12 mg/kg up to 500 mg) orally daily for 5 days	
Initial analgesia while awaiting diagnostic confirmation: mild-moderate pain	1. Paracetamol 1000 mg (child 15 mg/kg) orally, 4-hourly up to a maximum of 60 mg/kg/day or 4000 mg/day	Preferred initial analgesia during diagnostic uncertainty, to avoid the masking effect that anti-inflammatory use can have on migratory joint symptoms, fever and inflammatory markers.
Initial analgesia while awaiting diagnostic confirmation: severe pain	1. Tramadol immediate-release 50 to 100 mg (child 1 to 2 mg/kg) orally, 4-hourly up to a maximum of 400 mg/day	As above but for severe pain. Note safety warnings to avoid tramadol (or codeine) in children aged <12 years due to variable metabolism; therefore, use only when strong analgesia is essential and cautious monitoring is available.
Symptomatic management of arthritis/arthralgia after confirmation of ARF diagnosis	1. Naproxen immediate-release 250-500 mg (child 10–20 mg/kg/day) orally twice daily, up to a maximum of 1250 mg daily OR	Naproxen may be safer than aspirin, and convenient due to twice daily dosing and the capability oral suspension. Ibuprofen is well tolerated and readily available but data and experience with its use is less in ARF than naproxen. The dose of NSAIDS needed for ARF is generally higher than the dose recommended for other conditions, therefore it may be appropriate to commence at the higher dose range. Due to the rare possibility of Reye's syndrome in children, aspirin may need to be ceased during intercurrent acute viral illness, and influenza vaccination is strongly recommended.
	2. Ibuprofen 200-400 mg (child 5-10 mg/kg) orally three times daily, up to a maximum of 2400 mg daily OR	
	3. Aspirin adults and children 50-60 mg/kg/day orally, in four to five divided doses. Dose can be escalated up to a maximum of 80-100 mg/kg/day in four to five divided doses.	
Symptomatic management of moderate to severe chorea	1. Carbamazepine 3.5 to 10 mg/kg per dose orally, twice daily 2. Sodium valproate 7.5 to 10 mg/kg per dose orally, twice daily	Treatment of Sydenham chorea should be considered if movements interfere substantially with normal activities.
Symptomatic management of very severe chorea / *chorea paralytica* (Table 7.6)	In addition to an anticonvulsant agent, consider adding corticosteroid: Prednisone/prednisolone 1 to 2 mg/kg up to a maximum of 80 mg orally, once daily or in divided doses	
Symptomatic management of carditis	Paediatric dosing: Furosemide (frusemide) 1 to 2 mg/kg orally as a single dose, then 0.5 to 1 mg/kg (to a maximum of 6 mg/kg) orally, 6- to 24-hourly Spironolactone 1 to 3 mg/kg (initially) up to 100 mg orally, daily in 1 to 3 divided doses. Round dose to a multiple of 6.25 mg (a quarter of a 25-mg tablet). Enalapril 0.1 mg/kg orally, daily in 1 or 2 divided doses increased gradually over 2 weeks to a maximum of 1 mg/kg orally, daily in 1 or 2 divided doses, other ACE inhibitors (captopril, lisinopril, ramipril, perindopril)	Treatment of heart failure may be required in severe, acute carditis. Seek advice from a specialist cardiologist. Choice of ACE inhibitor will vary depending on the clinical situation. Seek advice from a specialist cardiologist.
	Adult dosing: Furosemide (frusemide) 20–40 mg oral or intravenous as a single dose followed by 20–40 mg oral or intravenous 8–12 hourly. Ongoing dose adjustment bases on clinical progression and renal function. Spironolactone may be added for patients having limited or no response to loop diuretic, 12.5–25 mg spironolactone orally daily Nitrate therapy may be added for patients having limited or no response to diuretic therapy, whose systolic blood pressure is greater than 90 mmHg. Intravenous or topical glyceryl trinitrate may be used. ACE inhibitor is recommended in patients with moderate or severe left ventricular systolic dysfunction, unless contraindicated	The management of acute carditis follows the same principles as the management of acute heart failure. This table gives a guide to the initial management of acute heart failure due to acute carditis in adults. Seeking advice from a specialist cardiologist early is strongly recommended.
	Digoxin 15 micrograms/kg orally, as a single dose, then 5 micrograms/kg after 6 hours, then 3–5 micrograms/kg (adult: 125–250 micrograms) orally, daily	Digoxin is rarely used in the treatment of acute carditis. Seek advice from a specialist cardiologist.
Disease-modifying (immunomodulatory) treatments	Prednisone/prednisolone 1 to 2 mg/kg up to a maximum of 80 mg orally, once daily or in divided doses	Considered for use in selected cases of severe carditis, despite meta-analyses in which overall benefit was not evident.

IMI, intramuscular injection NSAID, non-steroidal anti-inflammatory drug; ACE, Angiotensin-converting enzyme

Reference: RHDAustralia (ARF/RHD writing group). *The 2020 Australian guideline for prevention, diagnosis and management of acute rheumatic fever and rheumatic heart disease (3rd edition);* 2020 pp105-106 (https://www.rhdaustralia.org.au/arf-rhd-guideline)